

East 67th Street Ground Water Plume Odessa, Texas

Remedial Action Priority Panel Meeting

November 3 - 4, 2011

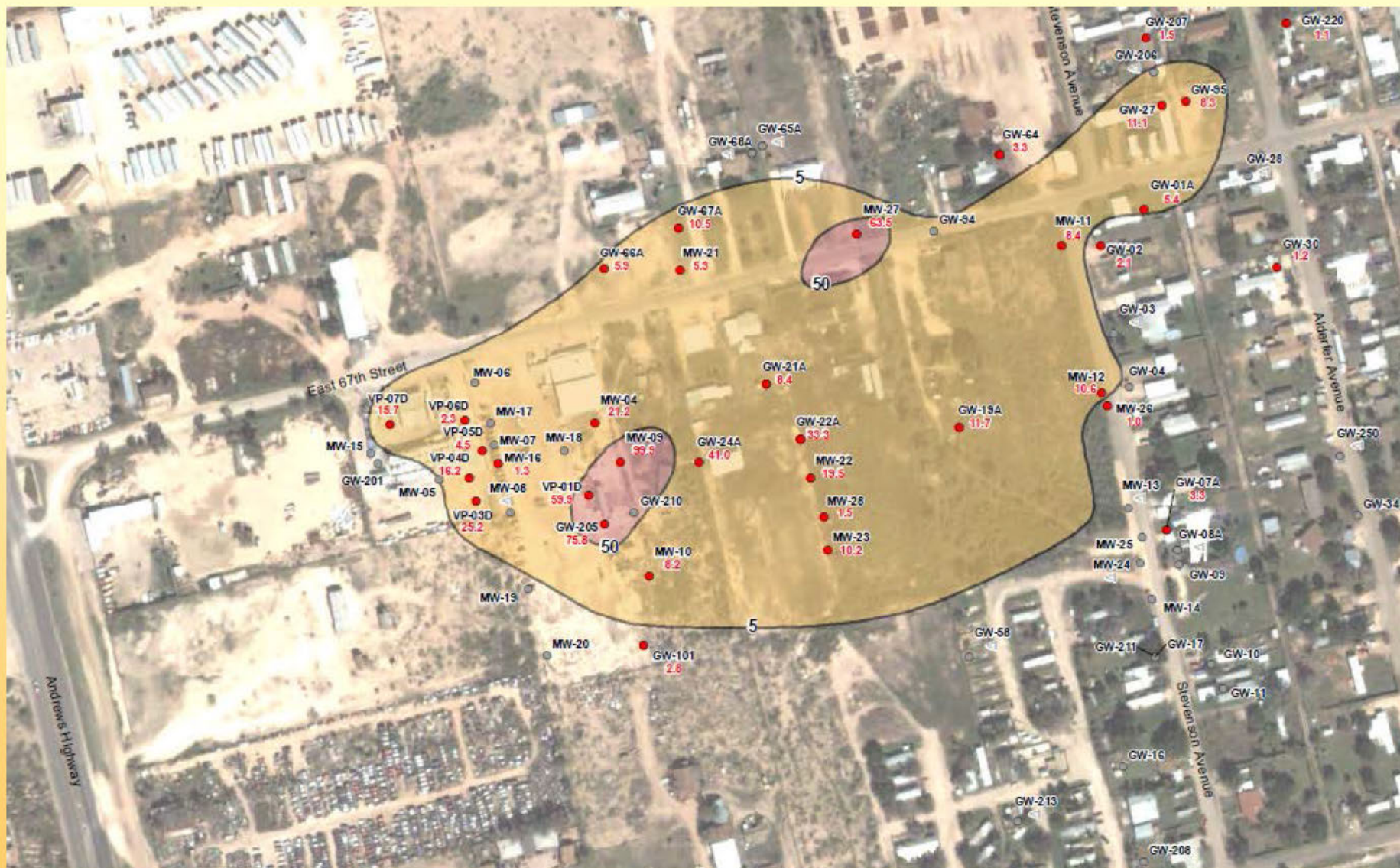


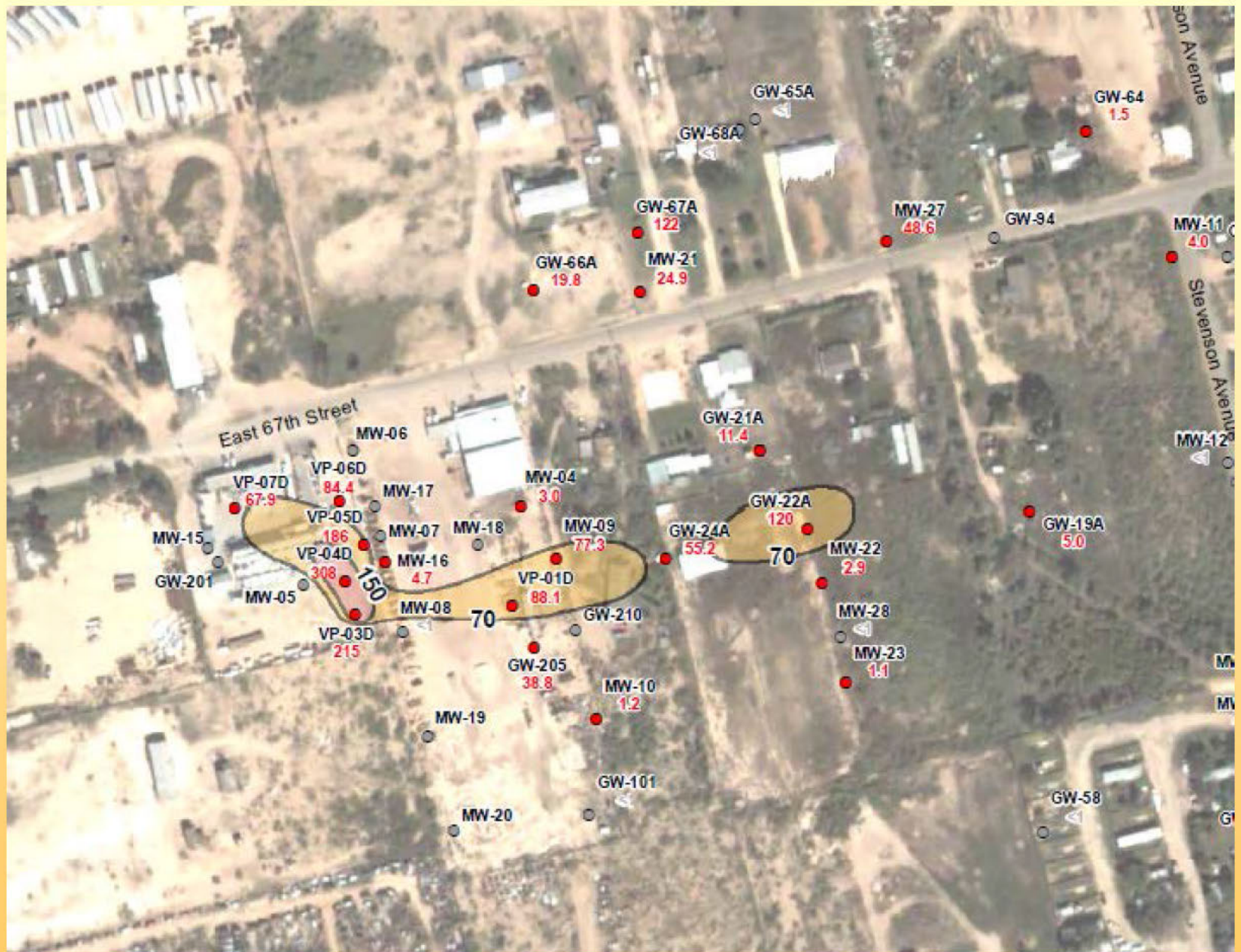
Site Summary

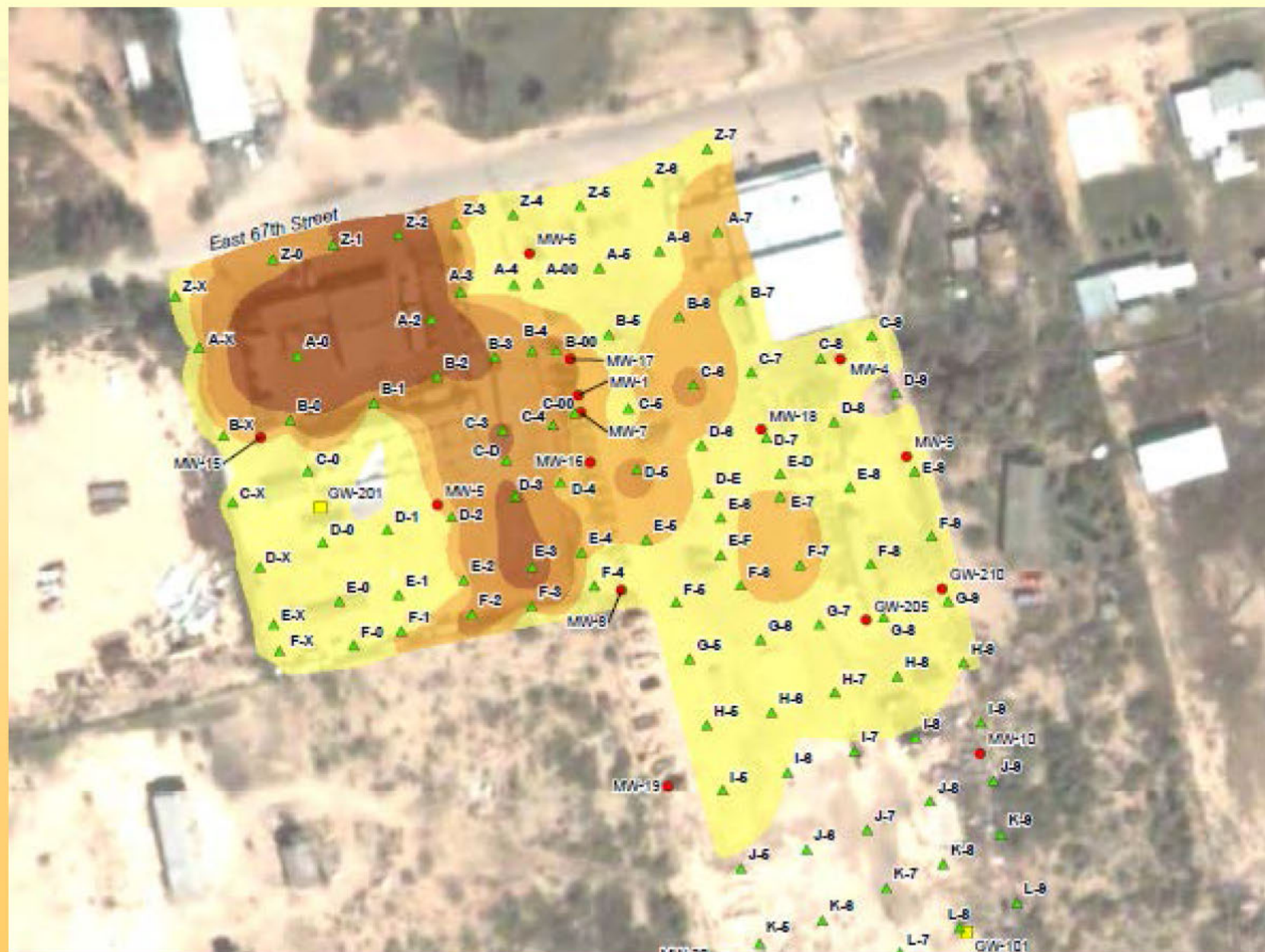
- March 1985: Vandalism resulted in a product tank chemical spill at the Delta Solvents facility.
 - Over 15,000 gallons released, of which 635 gallons were tetrachloroethene (PCE).
 - Approximately 2800 cubic yards of soil removed.
 - Area capped with concrete tank storage pad.
- Impact to ground water
 - 1500-foot long ground water plume containing PCE and related degradation products.
 - Residual contamination in the subsurface surrounding the spill area.

Site Summary

- Site Characteristics
 - Soil and caliche: 0 – 25 feet below surface
 - Ogallala Formation: 25 – 80 feet
 - composed of interbedded sands and clays
 - generally unsaturated
 - seasonal rise in water table
 - Trinity/Antler Formation: 80 – 145 feet
 - main aquifer and source of drinking water
 - Triassic red beds: 145 feet and below







Remedial Action Objectives

- Prevent Human Exposure
 - COCs in water supply wells exceeding MCLs;
- Plume Containment
 - Prevent or minimize further migration of COCs in ground water at concentrations exceeding the MCLs;
- Aquifer Restoration
 - Restore the ground water to its expected beneficial uses wherever practicable by reducing COC concentrations at or below the MCLs; and,
- Source Control
 - Prevent or minimize further migration of COCs present in the vadose zone soils from causing concentrations in ground water to exceed MCLs and mitigate potential vapor intrusion.

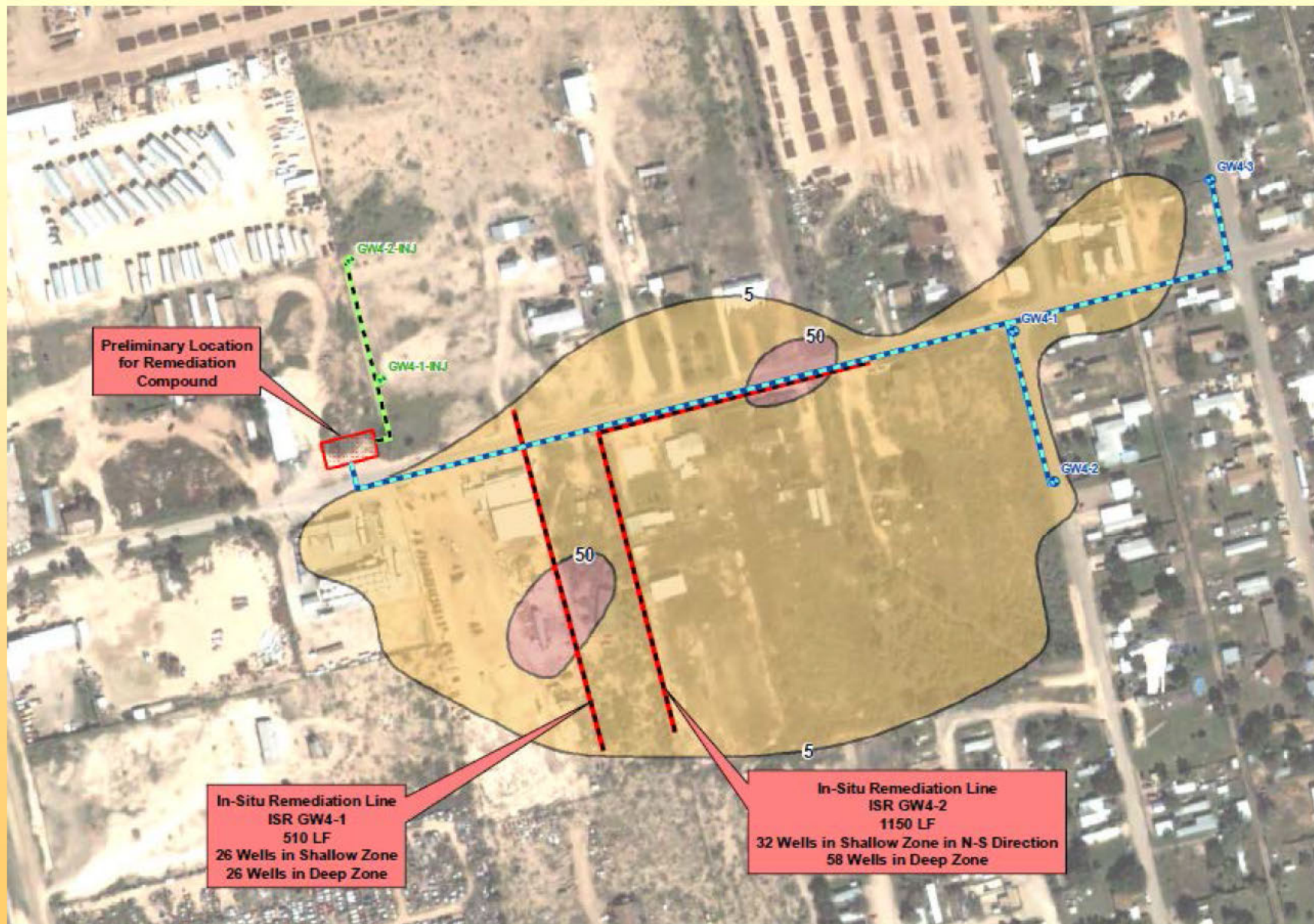
Ground Water Remedial Goals

Contaminant of Concern	Remedial Goal	Source
Tetrachloroethene	5 µg/L	MCL
Trichloroethene	5 µg/L	MCL
cis-1,2-Dichloroethene	10 µg/L	MCL
Benzene	5 µg/L	MCL

Selected Remedy

- Install Alternate Water Supply Line
 - Capital Cost: \$1,434,000
- Ground Water Extraction and In-Situ Treatment Zones
 - Capital Costs: \$3,179,000
 - Total O&M Costs: \$6,586,000
 - Present Value Costs: \$7,904,000
- Soil Vapor Extraction, Well Abandonment, and In-Situ Treatment
 - *Capital Cost: \$1,662,000*
 - *Total O&M Costs: \$2,193,000*
 - *Present Worth (7%): \$3,459,000*





Ground Water Alternatives

- All of the ground water alternatives have common components:
 - Short-Term Institutional Controls
 - Long-Term Institutional Controls
 - Evaluated at the end of 10-years
 - Restrictive Covenant
 - Deed Notices
 - Groundwater Monitoring
 - Operation and Maintenance
 - Five Year Reviews